

Hazardous Waste Management Commission Report

April through June 2014

Quarterly Report



Hazardous Waste Management Commissioners

Deron Sugg, Chair

Charles "Eddie" Adams, Vice Chair

Andrew Bracker

James "Jamie" Frakes

Elizabeth Aull

Michael Foresman

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"The goal of the Hazardous Waste Program is to protect human health and the environment from threats posed by hazardous waste."

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Past issues of the Hazardous Waste Management Commission Report are available online at www.dnr.mo.gov/env/hwp/quarerlyreport.htm.



Missouri Department of Natural Resources
Hazardous Waste Program

Cover Photo: Kelley Acree Building Composite

Letter from the Director

This edition of the Commission Quarterly covers the time period of April 1 through June 30, 2014. This timeframe marks the end of the 2014 legislative session and the state fiscal year.

As this year's legislative session came to a close, hazardous waste issues were not as prominent as they were in the previous two years. In 2012, HB 1251 brought us the "no stricter than" language that was added to the Hazardous Waste Law; and, the 2013 session produced HB 28 and HB 650, which contained language that streamlined the permitting process, allowed the Commission to adjust certain fees by rule, and changed the structure of the Commission. However, this year's session did result in some changes to the Hazardous Waste Law that will have an effect on the Hazardous Waste Program. SB 642, which passed this session and was signed into law, included language that made minor changes to the provisions related to the Commission being able to set certain fees by rule, thereby clarifying the process and extending the sunset date of this authority by a year, to Aug. 28, 2024. It also removed a provision that would have only allowed a fee increase to go into place in the next odd numbered year after the fee was approved.

SB 642 also included language that extended the sunset date of the law related to the radioactive waste transport fee from Aug. 28, 2015, to Aug. 28, 2024. Those fees are used to fund escorts of radioactive waste shipments across the state, perform inspections, train emergency responders and provide them with equipment to help respond to any potential emergency situations. Without this extension there would be no funding for these activities, so we were glad to see this addressed this year rather than next year when it would be more of a critical issue. All in all, it was a good legislative session for the Program.

During this quarter, we also saw a number of changes to the makeup of the Hazardous Waste Management Commission (HWMC). In April, we saw the election of Commissioner Deron Sugg as the new Chairman and Commissioner Charles Adams as the new Vice-Chair. We welcome them to these new roles for the coming year and look forward to working with them in their new capacity. We would also like to thank Commissioner Michael Foresman and Commissioner Andrew Bracker for their service as the Chair and Vice Chair, respectively, this past year as well.

In June, we also welcomed a new Commissioner to the HWMC. Mr. Mark Jordan was appointed by the Governor as the first ever Retail Petroleum Industry Representative to the HWMC. As noted above, this position on the Commission was created by HB28 and HB650 from the 2013 legislative session. The newly created industry position replaces one of the previous public member slots on the Commission; and with Commissioner Jordan's appointment, all positions on the Commission are now filled. We welcome Commissioner Jordan to his new role on the Commission as well as the experience and perspective that he will bring as the retail petroleum representative.

In this edition of the quarterly you will also find updates on activities that have been undertaken this quarter including the restart of our pesticide collection activities and efforts staff have taken to keep our partners and stakeholders informed of the activities of the Program. We hope you find this information useful and enjoy reading about the Program's efforts.

Sincerely,



David J. Lamb

Table of Contents

| | |
|---|-----------|
| Remediation | 4 |
| Brownfields/Voluntary Cleanup Certificates of Completion | 4 |
| Table – Sites in Brownfields/Voluntary Cleanup Program | 7 |
| Table – Drycleaning Environmental Response Trust Fund | 8 |
| Table – Reimbursement Claims | 9 |
| | |
| Permits | 10 |
| The Conceptual Site Model: A Corrective Action Tool | 10 |
| | |
| Enforcement | 12 |
| Regional Office Hazardous Waste Compliance Efforts | 12 |
| Underground Storage Tank Compliance and Technology Unit..... | 12 |
| Special Facilities Unit | 13 |
| Hazardous Waste Enforcement Unit..... | 13 |
| Table - Underground Storage Tank Facilities with Unknown Financial Responsibility Status Report..... | 14 |
| | |
| Tanks..... | 15 |
| Petroleum Storage Take Statistics | 15 |
| Table – Tanks Regulations, Closures and Cleanups Attachment | 16 |

Brownfields/Voluntary Cleanup Program Certificates of Completions

Brownfields are real property where the expansion, redevelopment or reuse of may be complicated by the presence or potential presence of a hazardous substance, pollutant or contaminant. Through this program, private parties agree to clean up a contaminated site and are offered some protection from future state and federal enforcement action at the site in the form of a “no further action” letter or “certificate of completion” from the state.

The Brownfields/Voluntary Cleanup Program (BVCP) issued four certificates of completion for various sites from April through June 2014. This brings the total number of certificates of completions to 971.

North Broadway Building – St. Louis

The North Broadway Building site, 500 N. Broadway, St. Louis, occupied the southern portion of the 0.54-acre site in 1875. It was a five-story building, which housed B. Nugent & Brothers Dry Goods. B. Nugent & Brothers Dry Goods operated on the site until 1944, when the building was demolished. The site sat vacant until the 1950's when Wayco Petroleum constructed a parking garage. The eastern portion of the site was occupied by a bus terminal, dry cleaner, bakery and music store in the 1950s and 1960s. The foundation and parking garage for the current 22-story office building was constructed in 1969. The 436,000 square-foot building was completed in 1971 and the interior was remodeled several times. Asbestos containing fireproofing coating was abated from several floors and areas of the building and properly disposed. Other asbestos containing materials (ACMs) were encapsulated to prevent exposure.

An operation and maintenance (O&M) plan was filed in the chain of title for the property on March 20, 2014, for the care of the materials left in place. The department determined that the site is safe for its intended use.

Lafayette Venture Redevelopment – St. Louis

The Lafayette Venture Redevelopment site, 2714 Lafayette Ave., St. Louis, is a property that has a 25,706 square foot building constructed in 1890. Beginning in at least 1909, the site was occupied by a livery, an automotive service garage and filling station and an ice and fuel company. ACM and lead-based paint (LBP) were identified in the building. The building was abated to remove all ACM and LBP except for a few select areas were hazards were properly encapsulated. A tier 1 risk assessment concluded that residual petroleum contamination does not pose a risk for unrestricted use of the site.

A tier 1 risk assessment was conducted in accordance to the 2006 Missouri Risk Based Corrective Action (2006 MRBCA) guidelines to determine potential site risk. The assessment compared findings against soil type II residential levels. Gasoline range organics, naphthalene and benzene concentrations were found to be below the level of concern for residential use. Lead and arsenic were each below the respective background concentrations for St. Louis County. Groundwater contamination was below levels of concern for vapor intrusion. A St. Louis ordinance prohibits the installation of domestic wells, rendering groundwater pathways incomplete. The site therefore qualifies for residential use. The department determined that the site is safe for its intended use.

Beacon Hill Redevelopment Project - Kansas City

The Beacon Hill Redevelopment Project site, 2601 and 2605 West Paseo Blvd and 2600 and 2604 Paseo Blvd., Kansas City, is currently vacant and is situated in a residential district known as the Robinson Hospital Subdivision. Initial investigation identified the presence of lead, mercury and benzo(a)pyrene in soil in concentrations above the 2006 MRBCA, default target levels (DTLs) and tier 1 risk-based target levels (RBTLs) for residential use project site. Ten confirmation soil samples and one duplicate sample were collected from the exposed surface of the excavation area once the extent of excavation was reached. Chemical analysis showed lead levels for all confirmation samples were below 260 mg/kg. The department determined that the site is safe for its intended use.

Wade Funeral Home - St. Louis

The Wade Funeral Home site, 4800-4828 Natural Bridge Ave., St. Louis, was developed for commercial use in the 1930s and currently serves as a funeral home with a flower shop and chapel. Historic uses include a hardware store, bowling alley and a youth center. The eastern portion of this site was an automotive repair and fueling station from the late 1930s until the late 1950s, although the exact time frame is not certain. Adjoining properties were an automotive station and dry cleaners. An August 2013 phase II investigation, conducted by their consultant, identified residual subsurface contamination below levels of concern. A phase II investigation was conducted in August 2013 to fully delineate onsite contamination and investigate impact from offsite recognized environmental concerns. Follow-up surficial sampling was completed in December 2013 at previous sample locations to address data gaps. Two additional borings were also placed to address the former onsite automotive station. A tier 1 risk assessment was performed according to the 2006 MRBCA guidelines to determine the potential risk posed by residual site contamination. Benzo(A)Pyrene, benzo(k) floranthene and lead concentrations were found to be below RBTLs for all pathways. The site therefore qualifies for unrestricted use. The department determined that the site is safe for its intended use.



Columbus Park Redevelopment – Kansas City

The Columbus Park Redevelopment site, 400 and 401 Charlotte St., Kansas City, is located in a mixed commercial and residential area in Kansas City. The 400 Charlotte St. portion of the site was occupied by various freight lines from 1951 until 1980. The property sat vacant until 1990 when Heart Of America Produce Co. began operation. The property is currently vacant and mostly

covered by vegetation. Based on the review of historical resources, 401 Charlotte Street was also owned by Toedbusch Transfer Inc. from 1951 to 1970, when the property transferred to Saraan Truck Rental. The property sat vacant from 1985 to 1995 when Northern Pipeline began operation. Coach USA obtained the property in 2006. This facility is identified as an active leaking underground storage tank (LUST) site, and a no further action letter was issued in 2006 by the department in regards to the LUST issue. The property is currently occupied by a building and parking lot that is operated by White Knight Limousines.

The investigation concluded that concentrations of contaminants do not exceed 2006 MRBCA DTLs or background concentrations; therefore, the site meets the requirements for unrestricted use. The department determined that the site is safe for its intended use.



Kelley Acree Building - St. Louis

The Kelley Acree Building site, 3207 Washington Ave., St. Louis, contains a 23,500 square foot building with two floors, a full basement and a single story wing. Developed around 1909, this site served as residential property, office space, a scientific publisher and a performing arts school. Miscellaneous hazardous materials, ACM, LBP and an above-ground storage tank located in the basement were identified at this site.

The bulk of hazardous materials were addressed through demolition or abatement by complete removal. An O&M plan has been established for LBP and ACM remaining on site. The department determined this site is safe for its intended use.

Sherman Avenue House - Springfield

The Sherman Avenue House site, 1130 N. Sherman Ave., Springfield, consists of two residential structures, one two story home with basement and one out building, constructed prior to 1978. Previous investigations identified the presence of LBP and ACM. LBP was found on the interior and exterior of the three story house structure, primarily on windows, trim and exterior siding. ACM was found on both the house structure and outbuilding in the form of floor tile, transite siding and plaster skim coat. All ACM and LBP were abated by complete removal from the site. The outbuilding structure was demolished once ACM removal was complete. The house was completely gutted, and all ACM and LBP removed. The site therefore qualifies for unrestricted use. The department determined that the site is safe for its intended use.

History Museum - Springfield

The History Museum - Springfield site, 154 Park Central Square, Springfield, was developed in approximately 1886. Past uses of the site include a cigar factory, a print shop, a bank, a restaurant, nightclub, various other businesses and office space. The site building is currently vacant.

Site investigation confirmed the presence of LBP and ACM. The ACM and LBP were removed in accordance with an approved remedial action plan. Some ACM and LBP that were unable to be removed were encapsulated in place. An O&M to manage and prevent future exposure to the encapsulated ACM and LBP was approved by the BVCP and filed in the property's chain of title. The department determined that the site is safe for its intended use. The Ozarks Charitable Real Estate plans to redevelop this building into the Springfield History Museum.

Triple D Cleaners (former) - Washington

The Triple D Cleaners (former) site, 209 W. 2nd St., Washington, is a 0.07 acre site that was previously occupied by a two-story brick building with a basement and was formerly used as a dry cleaner. Dry cleaning solvent and low concentrations of petroleum were found to be present in both soil and groundwater. Asbestos and an underground heating oil tank were identified during investigation. B. of W. Holdings, Inc. purchased the property to demolish and replace their existing parking garage and drive-through facility, which was sited immediately south of the main Bank of Washington facility. The project was to increase the size of the main bank building and add an open-air multi-level parking garage for employees.



Bank of Washington parking lot near entrance

Site investigations revealed the presence of chlorinated solvents, primarily tetrachloroethylene (PCE) and its degradation products, in soil and groundwater. Several underground storage tanks were identified during site investigation activities and were removed in 2007. Following the demolition of the buildings in September 2007, the subsurface investigation included the installation of groundwater monitoring wells. Results of soil and groundwater samples indicated dry cleaning solvent

concentrations in excess of the 2006 MRBCA RBTLs for non-residential use of the property. A work plan was submitted to the department to excavate impacted soils as part of the source removal. The excavated soils were characterized and properly disposed of at an appropriate off-site facility. In December 2007, additional groundwater monitoring wells were installed. A tier 1 risk assessment was performed in accordance with the 2006 MRBCA technical guidance. The cumulative risk posed by the chemicals of concern in soil and groundwater was acceptable for the non-residential worker. However, groundwater-containing PCE could pose an unacceptable risk for the domestic use of groundwater. An environmental covenant was filed in the chain of title for the property on April 23, 2014, to ensure the use restrictions placed on this property remain in place. The department determined this site is safe for its intended use.

Sites in Brownfields/Voluntary Cleanup Program

| Month | Active | Completed | Total |
|------------|--------|-----------|-------|
| April 2014 | 236 | 731 | 967 |
| May 2014 | 236 | 733 | 969 |
| June 2014 | 236 | 735 | 971 |

New Sites Received: 9**April**

Faxon School Apartments, Kansas City
St. Lucas Church & Residential Apartment Building, St. Louis
Plaza Galleria Redevelopment Site, Cape Girardeau

May

Beaumont Building, St. Louis
Project Spirit-St. Louis, St. Louis
RNC Enterprises, Inc., St. Louis

June

Viatech Facility Former, Springfield
South Broadway, Lemay
General Electric Supply Corporation Building, St. Louis

Sites Closed: 8**April**

Beacon Hill Redevelopment Project, Kansas City
Columbus Park Redevelopment, Kansas City
Lafayette Venture Redevelopment, St. Louis
North Broadway Building, St. Louis
Wade Funeral Home, St. Louis

May

Kelley Acree Building, St. Louis
Sherman Avenue House, Springfield

June

Triple D Cleaners (former), Washington
History Museum-Springfield, Springfield

Drycleaning Environmental Response Trust Fund

The Department of Natural Resources' Drycleaning Environmental Response Trust (DERT) Fund provides funding for the investigation, assessment and cleanup of releases of chlorinated solvents from dry cleaning facilities. The two main sources of revenue for the fund are the dry cleaning facility annual registration surcharge and the quarterly solvent surcharge.

Registrations

The registration surcharges are due by April 1 of each calendar year for solvent used during the previous calendar year. The solvent surcharges are due 30 days after each quarterly reporting period.

| Calendar Year 2013 | Active Dry Cleaning Facilities | Facilities Paid | Facilities in Compliance |
|----------------------|--------------------------------|-----------------|--------------------------|
| January - March 2013 | 150 | 76 | 50.67% |
| April - June 2013 | 150 | 124 | 82.67% |

| Calendar Year 2014 | Active Solvent Suppliers | Suppliers Paid | Suppliers in Compliance |
|----------------------|--------------------------|----------------|-------------------------|
| January - March 2014 | 11 | 11 | 100.00% |
| April - June 2014 | 11 | 10 | 90.91% |

Cleanup Oversight

| Calendar Year 2014 | Active Sites | Completed Sites | Total |
|----------------------|--------------|-----------------|-------|
| January - March 2014 | 26 | 15 | 41 |
| April - June 2014 | 26 | 15 | 41 |

New Sites Received: 0

Sites Closed: 0

Reimbursement Claims

The applicant may submit a reimbursement claim after all work approved in the work plan is complete and the DERT Fund project manager has reviewed and approved the final completion report for that work. The DERT Fund applicant is liable for the first \$25,000 of corrective action costs incurred.

| Month | Received | Under Review | Paid/Processed |
|-------|----------|--------------|----------------|
| April | 0 | 7 | 2 |
| May | 0 | 6 | 2 |
| June | 1 | 1 | 0 |

| Month | Received | Under Review | Paid/Processed |
|-------|-------------|--------------|----------------|
| April | \$0.00 | \$441,185.37 | \$18,240.64 |
| May | \$0.00 | \$352,773.44 | \$142,511.84 |
| June | \$18,748.27 | \$6,300.20 | \$0.00 |

Reimbursement Claims Processed

| Site Name | Location | Paid |
|--|-------------|--------------|
| AG Cleaners | Kirkwood | \$19,014.78 |
| McDonald's State Line | Kansas City | \$15,949.39 |
| Tri-State Service Company-Booneville Avenue | Springfield | \$2,291.25 |
| Tri-State Service Company-East Trafficway Site | Springfield | \$123,497.06 |

Total reimbursements as of June 30, 2014: \$2,585,959.50

DERT Fund Balance as of June 30, 2014: \$505,261.00

The Conceptual Site Model: A Corrective Action Tool

Protecting human health and the environment is the department's main mission at any hazardous waste treatment, storage and disposal facility, but even more so at facilities where hazardous wastes or hazardous waste constituents were released to the environment. According to the Resource Conservation and Recovery Act of 1976 (RCRA) and the Missouri Hazardous Waste Management Law, owners or operators of hazardous waste treatment, storage and disposal facilities are required to investigate and remediate releases of hazardous waste and hazardous constituents to the environment resulting from hazardous waste handling practices at their facility, regardless of when those releases occurred. These activities, known as corrective action, are designed to investigate and ultimately reduce risks to human health and the environment by implementing cleanup and risk management actions.

Gathering enough data to fully define the type and amount of hazardous waste and hazardous constituents released at a facility, where the release is located, how fast the release is moving in the environment and selecting effective corrective measures to remediate the release is a complex process requiring a collection of substantial scientific/engineering information and the expertise of many stakeholders. A conceptual site model (CSM) is a critical planning and decision-making tool designed to help project teams streamline the corrective action process. CSMs are a facility-specific written or pictorial description of the source(s) of contamination and the pathways contamination could take from the source(s) to humans, animals or the environment, such as by air, soil, water and food. CSMs present the best interpretation of available site information and technical data in a clear and understandable format, such as text, tables, figures or flowcharts.

The Purpose of a CSM

CSMs help the department, EPA and regulated facilities organize information about facilities' characteristics and environmental setting. CSMs are iterative "living representations" of information that evolve throughout the corrective action process. They are used to interpret available information and identify data gaps/uncertainties needing to be addressed during the corrective action process. As additional data is gathered to address the uncertainties, CSMs are tested and refined to reflect new information. If new data is inconsistent, either the data needs evaluation, or the CSMs needs to be revised.

CSMs also provide the fundamental foundation for how and where contaminants are expected to move in the environment and what impacts such movement may have. For actual risk to occur, the migration and exposure pathways must be complete. That is, there must be a way for the contaminants to move from the source to a point of contact with the receptor. CSMs help facilitate communication between stakeholders regarding actual and potential contaminant receptors so as to focus available investigation resources on contamination pathways representing the greatest actual or potential human health and environmental risks.

In the event that an exposure pathway is determined to be complete, a CSM would be used to support selection of appropriate corrective measures to mitigate identified exposure pathways. Conversely, if it can be shown that an exposure pathway is incomplete, the need for additional investigations or corrective measures regarding that pathway can be eliminated. By improving communication and focusing resources on the most likely risks, a CSM can provide financial benefits to regulated facilities and streamline the overall corrective action process.

CSM Components

Initially CSMs can be based on limited information, and then they are further developed as data is collected and analyzed. CSMs should address four basic components:

- 1. Contaminant Source(s) and Contaminants of Concern** - Following a review of a facility's operational history and past investigation data, the contaminants of concern and likely sources/activities

that might have contributed to the contaminant release are identified. Release sources may include leaking tanks, waste/product spills, sewer lines and pipelines, floor drains, landfills and other land disposal management units, fire-training areas and discharge areas.

2. Migration Pathways - Releases can contaminate several different media at facilities, such as air, soil, sediment, groundwater and surface water. CSMs attempt to conceptualize how the released contaminants move in the environment. Contaminant migration can occur in the following ways:

- Through water picking up contaminants in the soil as it drains/percolates
- Through the source to a groundwater aquifer
- As water flows overland to surface water bodies
- As contaminants in a groundwater aquifer flow to another aquifer
- As surface water body and contaminants in soil or groundwater evaporate to air

All environmental media (air, soil, sediment, surface water and groundwater) should be evaluated. Investigators can determine which media and migration pathways are applicable to facilities, based on the nature of the release, the contaminants of concern and the facility-specific geologic and hydrogeologic characteristics.

3. Human and Ecological Receptors - The key functions of CSMs are to identify the actual and potential receptors that might come into contact with contaminated media. This evaluation considers both current and possible future use of facilities' properties, as well as the land use surrounding the facilities. Potential human receptors may include residents, workers, visitors, construction workers, trespassers and groundwater users. Ecological receptors may include fish, birds, mammals and plants. The ecological risk evaluation is usually separate from the human risk evaluation, since humans are normally exposed and impacted differently than ecological receptors.

4. Exposure Pathways - CSMs list the different ways receptors may be exposed to contaminants of concern. Potential exposure pathways include inhaling vapor/dust, direct contact with contaminated media (skin exposure) or ingesting contaminated media or food (groundwater/fish).

CSM Format

CSMs are communicated in different ways depending on the complexity of the environmental setting at facilities. CSMs benefit from the use of multiple formats (text, tables, figures and flowcharts) to best portray the available information. A good narrative may be the best way to provide descriptions of facilities and their history, while also identifying contaminant source(s) and receptors, both human and ecological.

Maps can show the relative position of contaminant sources, surface water features, prevailing wind pattern and groundwater contaminant plume contours. Flow diagrams can be used to show the "interrelationships" from the original source(s) to the final receptor(s).

Conclusion

CSMs are a valuable tool used to assess corrective measures to mitigate identified exposure pathways. If you have any questions about this process, please contact Rich Nussbaum in the Permits Section at rich.nussbaum@dnr.mo.gov.

Regional Office Hazardous Waste Compliance Efforts

- Conducted 103 hazardous waste generator compliance inspections:
 - 24 at large quantity generators
 - 25 at small quantity generators
 - 34 at conditionally exempt small quantity generators
 - Four resource recovery inspections
 - 13 at E-waste recycling facilities
 - Three targeted re-inspections
- Conducted eight compliance assistance visits at hazardous waste generators
- Issued 20 letters of warning and five notices of violation requiring actions to correct violations cited during the 103 inspections conducted
- Received and investigated a total of five citizen concerns regarding hazardous waste generators

Underground Storage Tank (UST) Compliance and Technology Unit (CTU)

New regulation changes continue to progress. To comply with the Environmental Protection Agency (EPA) Energy Policy Act requirements for underground storage tanks (USTs), the department will require all new UST systems installed after July 1, 2017, to be double-walled with improved monitoring. The new regulation proposals will also include Missouri-specific improvements, as well any “new” federal regulation changes. The Underground Storage Tank Compliance and Technology Unit (UST CTU) continues to participate in meetings and outreach efforts to the regulated community to assure they have ample opportunity to provide input on the proposed regulations.

Tank Inspection Efforts

State Fiscal Year 2015 contracted inspections will soon begin. As we have seen in previous years, Missouri owners, operators and contractors continue to demonstrate their proactive compliance, responsiveness to issues when found and willingness to be a partner in ensuring all Missouri USTs are in compliance. The efforts by our regulated community help the department to maintain compliance with the EPA requirement of inspecting all regulated facilities at least every three years. Furthermore, the department must demonstrate that all facilities are either in compliance or are moving to gain compliance. This goal is much easier to accomplish when owners, operators, contractors and regulators are all working together.

Out-of-use Tank Efforts

Within the last state fiscal year, staff made tremendous efforts and achieved good results in prompting responsible parties to close out-of-use tanks or take other appropriate site-specific actions. These efforts resulted in approximately 20 percent of the out-of-use sites moving toward permanent closure. However, due to reductions in funding and staff, the department will not be able to maintain this same level of effort.

Tank Enforcement Efforts

In addition to work on the out-of-use tank sites noted above, efforts continue to resolve violations with facilities that did not maintain financial responsibility (FR) to address releases and to protect third parties. Because of these efforts by UST CTU staff and the Attorney General’s Office, the number of facilities without a verified FR mechanism remains less than 30.

Special Facilities Unit

Commercial Facility Inspectors - Special facilities inspectors conducted 13 inspections of commercial hazardous waste treatment/storage/disposal facilities (TSDs).

Polychlorinated Biphenyl (PCB) Inspector - The PCB inspector conducted 23 compliance inspections at various types of facilities throughout the state. The inspector's reports are forwarded to the EPA Region 7, which has authority for taking any necessary enforcement action regarding PCBs according to the Toxic Substances Control Act.

Hazardous Waste Transporters - The inspector conducted 28 commercial vehicle inspections. Eight violations were cited and one commercial motor vehicle was put out of service.

As of June 30, there were a total of 267 licensed hazardous waste, used oil and infectious waste transfer stations/truck terminals operated by hazardous waste transporters in the state.

Hazardous Waste Enforcement Unit

Enforcement Efforts

- Resolved and closed five hazardous waste enforcement cases
- Received nine new enforcement cases
- Sent four penalty negotiation offer letters

2014 Pesticide Collection Events

On Saturday, May 31, staff oversaw the execution of the first Missouri Pesticide Collection Program event for calendar year 2014. The purpose of the collection events are to provide a free opportunity for Missouri households and farmers to dispose of their waste pesticides and herbicides. The collection events were funded by monies resulting from a plea agreement between Walmart and the Department of Justice's (DOJ's) Environmental and Natural Resources Division entered into in May 2013, for violations of the Federal Insecticide, Fungicide and Rodenticide Act in Missouri. The Hazardous Waste Program received \$ 3,000,000 from the DOJ to use for pesticide related activities.

A total of 30 vehicles dropped off waste during the day and a total of 4,734 pounds of pesticide/herbicide waste was collected. Below is a summary of the waste collected at the event as listed on the hazardous waste manifests:

- 2,500 pounds of Toxic Pesticides (liquid)
- 1,400 pounds of Toxic Pesticides (solids)
- 550 pounds of Flammable Toxic Pesticides (liquid)
- 200 pounds of Non-regulated Pesticides (solid)
- 84 pounds of various waste pesticides including aerosols, oxidizers and flammable organic solids

During the event, staff surveyed the participants on where they heard about the program and where they had come from. The results of the survey will be used to determine the most effective ways to use our resources to distribute information prior to future events. The result of the survey was:

- 20 people were informed through a newspaper article or advertisement
- Four participants were informed through on-line/e-mail/word of mouth
- Three participants were informed through radio and newspaper
- Two participants were informed through event fliers
- One participant was informed via Extension newsletter

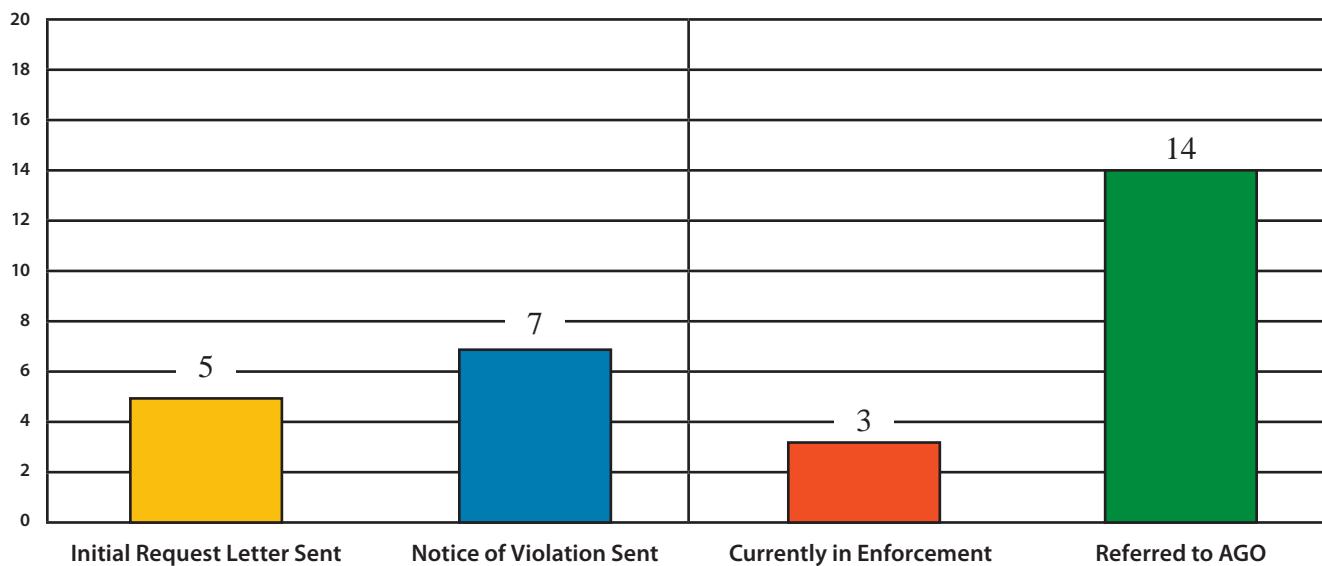
Two additional events are scheduled and the program continues to finalize details for a fourth event in 2014. The second event is scheduled for July 26, in Washington. The third event is scheduled for Marshfield, on August 23.

The 2014 Missouri Pesticide Collection Program Plan consists of two major goals. The first is to organize, set up and conduct pesticide collection events with a goal of holding four pesticide collections in 2014. The second is to develop an information/education program regarding responsible use and disposal of pesticides. The program started educational efforts by making some updates to the web page, creating event flyers and beginning to pool technical resources currently available. Details on the final event for 2014, outcomes from the upcoming events and additional progress toward our goals will be provided in the next quarterly report.

Underground Storage Tank Facilities with Unknown Financial Responsibility Status Report

| Financial Responsibility Status | Number of Facilities |
|---|----------------------|
| Initial Request Letter Sent | 5 |
| Notice of Violation Sent | 7 |
| Currently in Enforcement | 3 |
| Referred to Attorney General's Office | 14 |
| Total Number of Facilities with Unknown Financial Responsibility | 29 |

Number of Facilities in Each Financial Responsibility Step



*This semi-monthly report is derived directly from a copy of the UST Database and provides a "snapshot" of the status for each active underground storage tank facility not covered by a proper Financial Responsibility Mechanism.

Petroleum Storage Tank Statistics

During Fiscal Year 2014, the department accomplished the following work related to petroleum storage tanks:

- Properly closed 381 tanks.
- Reviewed 145 closure reports.
- Approved 170 closure notices.
- Conducted two site investigations.
- Responded to 11 emergencies involving petroleum releases.
- Oversaw completion of 132 remediation sites.
- Issued 355 certificates of registration.

A total of 113 new releases were reported during Fiscal Year 2014. Department staff were notified of 67 new installations at tank sites and received 43 new site registrations. The Compliance and Enforcement Section staff resolved 39 cases involving violations. At the end of the 2014 fiscal year, there were 135 active enforcement cases. Financial responsibility compliance was at 99 percent. This number reflects insurance coverage from both Petroleum Storage Tank Insurance Fund (PSTIF) and other private policies and statements. There were 56 state/federal exempt sites. This number does not include temporary closed tanks, which are not required to have financial responsibility. The department regulates 3,486 facilities with 9,091 active underground storage tanks.

Tanks Section attends Association of State and Territorial Solid Waste Management Officials 2014 Leaking Underground Storage Tanks and State Fund-Financial Responsibility Workshop

The Hazardous Waste Program's Tanks Section participated in the Association of State and Territorial Solid Waste Management Officials (ASTSWMO) 2014 Leaking Underground Storage Tanks (LUST) and State Fund workshop May 19-21 in Tampa, Fla. The two and a half day conference covered many different subjects relevant to LUST and State Fund participants. Some of the subjects discussed were site optimization and cost effectiveness, fraud and abuse, light non-aqueous phase liquids, portfolio management, comprehensive site-characterization, innovative technologies, opportunities to automate your state fund, bankruptcy and long-term protectiveness, petroleum vapor intrusion and institutional controls. Additionally there was a question and answer session with the EPA regarding current and upcoming issues. The conference was an excellent opportunity to learn about successes and failures in other states. Networking with other states and territories is a useful tool to get ideas for innovation and improvement.

Tanks Section holds workshop at the Missouri Waste Control Coalition Conference

The Hazardous Waste Program's Tanks Section participated in and held a Tanks Workshop on June 29 through July 1 as part of the Missouri Waste Control Coalition Conference in the Tan-Tar-A Resort at Lake of the Ozarks.

This was the sixth annual workshop in conjunction with the Missouri Waste Control Coalition events. This conference targeted environmental consultants who provide services to tank owners and operators. The workshop provided consultants with information and training regarding the use of the Boss 200 product and the use of Ecovac extraction services for cleanup at sites in Missouri. In addition Missouri Geological Survey staff and Tanks staff provided guidance on how to evaluate the domestic use of groundwater in Green County. The workshop included departmental staff along with private consultants, private laboratories and others.

Participation in Hazardous Material Manager Conferences

Staff from the Tanks Section and the Compliance and Enforcement Section spoke at two environmental conferences. On April 10, staff spoke at the annual spring seminar of the Gateway Society of Hazardous

Materials Managers held in St. Louis and on April 17, staff spoke at the annual summit of the Greater Ozarks Chapter of the Academy of Certified Hazardous Material Managers held in Springfield. These organizations are dedicated to fostering professional development of their members through continuing education and peer group interaction. The annual conferences provide their members an opportunity to attend hazardous materials management training that meets the continuing educational requirements needed for them to retain their professional certifications.

The conferences also provided the department with an excellent opportunity to get the word out about the recent changes in petroleum storage tank regulations and guidance. Heather Peters and Coy King spoke about the changes made to the design and operation requirements of the tank regulations and about upcoming changes expected at federal and state levels. Valerie Garrett spoke about the changes made to release investigation and cleanup requirements of the regulations and revisions made to the Risk-Based Corrective Action Guidance document.

The department will continue to seek out opportunities such as these to reach out to the regulated community and the professionals doing tank work in Missouri, ensuring they are aware of changes made and how those changes will affect the work they do.

Missouri Department of Natural Resources - Hazardous Waste Program

**Petroleum Storage
Tanks Regulation
June 2014**

| Staff Productivity | Jul-13 | Aug-13 | Sep-13 | Oct-13 | Nov-13 | Dec-13 | Jan-14 | Feb-14 | Mar-14 | Apr-14 | May-14 | Jun-14 | TOTAL |
|--|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|
| Documents received for review | 185 | 220 | 179 | 198 | 166 | 181 | 203 | 168 | 163 | 151 | 169 | 186 | 2,169 |
| Remediation documents processed | 146 | 158 | 168 | 174 | 119 | 142 | 171 | 122 | 165 | 169 | 148 | 114 | 1,796 |
| Closure reports processed | 14 | 5 | 12 | 13 | 7 | 8 | 26 | 13 | 9 | 10 | 7 | 21 | 145 |
| Closure notices approved | 11 | 18 | 15 | 11 | 16 | 7 | 27 | 13 | 7 | 6 | 26 | 13 | 170 |
| Tank installation notices received | 4 | 7 | 6 | 5 | 5 | 3 | 4 | 1 | 11 | 4 | 6 | 11 | 67 |
| New site registrations | 6 | 5 | 5 | 5 | 4 | 6 | 1 | 4 | 0 | 2 | 2 | 3 | 43 |
| Facility Data | Jul-13 | Aug-13 | Sep-13 | Oct-13 | Nov-13 | Dec-13 | Jan-14 | Feb-14 | Mar-14 | Apr-14 | May-14 | Jun-14 | TOTAL |
| Total in use, out of use and closed USTs | 40,594 | 40,610 | 40,624 | 40,641 | 40,656 | 40,663 | 40,691 | 40,702 | 40,707 | 40,707 | 40,734 | 40,754 | |
| Total permanently closed USTs | 31,392 | 31,406 | 31,424 | 31,453 | 31,475 | 31,495 | 31,533 | 31,571 | 31,596 | 31,611 | 31,634 | 31,663 | |
| In use and out of use USTs | 9,202 | 9,204 | 9,200 | 9,188 | 9,181 | 9,168 | 9,131 | 9,111 | 9,111 | 9,111 | 9,100 | 9,091 | |
| Out of use USTs | 853 | 870 | 867 | 853 | 845 | 824 | 799 | 791 | 771 | 768 | 755 | 740 | |
| Total hazardous substance USTs | 399 | 399 | 399 | 399 | 400 | 400 | 400 | 404 | 404 | 404 | 404 | 404 | |
| Facilities with in use and out of use USTs | 3,525 | 3,527 | 3,525 | 3,516 | 3,517 | 3,517 | 3,503 | 3,501 | 3,491 | 3,492 | 3,490 | 3,486 | |
| Facilities with one or more tank in use | 3,233 | 3,229 | 3,226 | 3,223 | 3,225 | 3,232 | 3,224 | 3,224 | 3,227 | 3,228 | 3,231 | | |

Closures

| Underground Storage Tanks | Jul-13 | Aug-13 | Sep-13 | Oct-13 | Nov-13 | Dec-13 | Jan-14 | Feb-14 | Mar-14 | Apr-14 | May-14 | Jun-14 | TOTAL | All Yrs |
|--------------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|----------------|
| Closure Reports Reviewed | 14 | 5 | 12 | 13 | 7 | 8 | 26 | 13 | 9 | 10 | 7 | 21 | 145 | |
| Closure Notices Approved | 11 | 18 | 15 | 11 | 16 | 7 | 27 | 13 | 7 | 6 | 26 | 13 | 170 | |
| Number of Tanks Closed (Closure NFA) | 17 | 30 | 46 | 11 | 28 | 8 | 51 | 47 | 19 | 35 | 44 | 37 | 381 | |

Cleanup

| Underground Storage Tanks | Jul-13 | Aug-13 | Sep-13 | Oct-13 | Nov-13 | Dec-13 | Jan-14 | Feb-14 | Mar-14 | Apr-14 | May-14 | Jun-14 | TOTAL | All Yrs |
|-------------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|----------------|
| UST release files opened this month | 9 | 6 | 8 | 5 | 8 | 4 | 13 | 7 | 7 | 5 | 6 | 10 | 88 | 6,602 |
| UST cleanups completed this month | 7 | 6 | 13 | 3 | 9 | 2 | 12 | 7 | 4 | 11 | 12 | 15 | 101 | 5,733 |
| Ongoing UST cleanups | 879 | 879 | 873 | 874 | 874 | 878 | 881 | 880 | 881 | 875 | 874 | 868 | | |
| Aboveground Storage Tanks | Jul-13 | Aug-13 | Sep-13 | Oct-13 | Nov-13 | Dec-13 | Jan-14 | Feb-14 | Mar-14 | Apr-14 | May-14 | Jun-14 | TOTAL | All Yrs |
| AST release files opened this month | 0 | 1 | 0 | 1 | 1 | 3 | 1 | 0 | 0 | 0 | 1 | 1 | 9 | 468 |
| AST cleanups completed this month | 1 | 1 | 3 | 1 | 2 | 0 | 4 | 0 | 3 | 1 | 0 | 3 | 19 | 286 |
| Ongoing AST cleanups | 192 | 192 | 187 | 190 | 189 | 192 | 190 | 188 | 186 | 183 | 184 | 182 | | |
| Both UST and AST | Jul-13 | Aug-13 | Sep-13 | Oct-13 | Nov-13 | Dec-13 | Jan-14 | Feb-14 | Mar-14 | Apr-14 | May-14 | Jun-14 | TOTAL | All Yrs |
| Total release files-both UST & AST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 78 |
| Cleanups completed-both UST & AST | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 3 | 49 |
| Ongoing cleanups-both UST & AST | 29 | 29 | 29 | 29 | 29 | 29 | 31 | 31 | 31 | 30 | 30 | 29 | | |
| Unknown Source | Jul-13 | Aug-13 | Sep-13 | Oct-13 | Nov-13 | Dec-13 | Jan-14 | Feb-14 | Mar-14 | Apr-14 | May-14 | Jun-14 | TOTAL | All Yrs |
| Total release files-unknown source | 1 | 0 | 7 | 2 | 0 | 3 | 0 | 0 | 1 | 0 | 0 | 2 | 16 | 228 |
| Cleanups completed-unknown source | 1 | 0 | 4 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 9 | 183 |
| Ongoing cleanups-unknown source | 20 | 20 | 24 | 22 | 21 | 20 | 19 | 18 | 19 | 19 | 19 | 20 | | |
| Documents Processed | 146 | 158 | 168 | 174 | 119 | 142 | 171 | 122 | 165 | 169 | 148 | 114 | 1,796 | |
| *Reopened Remediation Cases | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 78 |

TANKS

* Reopened Remediation Cases was added Nov. 18, 2009 - the cumulative total has been queried and a running total will be tracked/reported with the FY 2010 Tanks Section Monthly Reports.

Effective December 2008 tanks with unknown substance will be included in total figures. Some measures are re-calculated each month for all previous months to reflect items added or edited after the end of the previous reporting period.